ABSTRACT OF THE DISCLOSURE

A thermal imaging method to detect heat flows from naturally-heated subsurface objects. The method uniquely combines precise, emissivity-corrected temperature maps, thermal inertia maps, temperature simulations, and automatic target recognition to display clear, clutter-free, three-dimensional images of contained hollow objects or structures, at depths to 20 times their diameter. Temperature scans are corrected using two different infrared bands. Co-registered object-site temperature scans image daily and seasonal temperature-spread differences, which vary inversely as the object's and surrounding host material's thermal inertias. Thermal inertia (resistance to temperature change) is the square root of the product ($k\rho C$), for thermal conductivity, k, density, ρ and heat capacity, C.